

## **RESPONSE**

This Amendment is presented in response to the Examiner's Office Action mailed June 17, 2003. Claims 10-12 and 15-20 are canceled without prejudice, and new claims 21-27 are added. Claims 1-9, 13-14, and 21-27 are now pending in view of the aforementioned amendments, additions, and cancellations.

Reconsideration of this application is respectfully requested in view of the above amendments to the claims and the following remarks. For the convenience and reference of the Examiner, the remarks of the Applicant are presented in the order in which the corresponding issues were raised in the Office Action.

### **I. Claim Rejections Under 35 U.S.C. § 102(e)**

In connection with the matters contemplated herein, Applicant respectfully notes that the following discussion should not be construed to constitute an exhaustive enumeration of the distinctions between the claims of the present application and the references cited by the Examiner. Instead, such distinctions are presented solely by way of example. Consistent with the foregoing, the discussion herein is not intended, and should not be construed, to prejudice or foreclose future consideration, by the Applicant, of additional or alternative distinctions between the claims of the present application and the references cited by the Examiner.

Applicant notes further that a claim is anticipated under 35 U.S.C. § 102(a), (b), or (e) only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. Further, the identical invention must be shown in as complete detail as is contained in the claim. Finally, the elements must be arranged as required by the claim. See Manual of Patent Examining Procedure ("M.P.E.P.") § 2131.

### **Alleged Anticipation of Claims 1-6 and 18-20**

The Examiner has rejected claims 1-6 and 18-20 under 35 U.S.C. § 102(e) as being anticipated by U.S. 6,289,079 issued to *Chornenky et al* (“*Chornenky*”). Applicant respectfully notes that as claims 18-20 have been canceled herein, the rejection of those claims has been rendered moot and should, accordingly be withdrawn.

As to claims 1-6, the Applicant respectfully disagrees with the contentions of the Examiner and submits that, for at least the reasons outlined below, *Chornenky* fails to anticipate independent claim 1, as well as claims 2-6 depending therefrom, and the rejection of those claims should accordingly be withdrawn.

In rejecting claim 1, the Examiner has asserted that *Chornenky* teaches a “stationary anode [115 that] comprises: a substrate (155) having first and second ends; and a target cap (130) having top and side walls that together define a cavity that at least partially receives the first end of the anode substrate. . . Figure 1” (emphasis added). Thus, the Examiner has characterized *Chornenky* as teaching a stationary anode comprised of two elements, namely, a substrate and a target cap wherein the first end of the anode substrate is at least partially received. However, *Chornenky* contradicts the characterization advanced by the Examiner.

In particular, *Chornenky* refers to a “central core conductor 155 that is connected to the interior surface of the anode 115” (emphasis added) (col. 9, lines 65-67). That is, while the Examiner has characterized “central core conductor 155” as comprising a “substrate” that is a component of a “stationary anode 115,” the plain language of *Chornenky* makes clear that, in fact, “central core conductor 155” is not part of the “anode 115” but instead comprises an element that is separate and discrete from “anode 115.” Contrary to the assertion of the

Examiner then, *Chornenky* does not teach a “stationary anode [115 that] comprises: a substrate (155) . . .” Instead, *Chornenky* draws a clear distinction between the “central core conductor 155” and the “anode 115.” As well, *Chornenky* clarifies that not only is the “central core conductor 155” not a part of the anode “115” but the “central core conductor 155” is instead a component of a coaxial cable. In particular, *Chornenky* provides that “The coaxial cable 165 includes a central core conductor 155 . . .” (emphasis added) (col. 9, lines 65-67).

Thus, the element of *Chornenky* that the Examiner has characterized as comprising a “substrate,” is not part of the “anode 115” as the Examiner has asserted. Instead, *Chornenky* teaches that the “central core conductor 155” is an element of a “coaxial cable 165.” Thus, *Chornenky* fails to teach, at least, the limitation of claim 1 of a “stationary anode [that] comprises: a substrate having first and second ends; and a target cap having top and side walls that together define a cavity . . .”

In view of the foregoing discussion, Applicant respectfully submits that *Chornenky* fails to disclose each and every element as set forth in claim 1 and, accordingly, *Chornenky* fails to anticipate claim 1, and likewise fails to anticipate claims 2-6 depending therefrom. Applicant thus respectfully submits that for at least the foregoing reasons, the rejection of claims 1-6 has been overcome and should be withdrawn.

## **II. Claim Rejections Under 35 U.S.C. § 103(a)**

Applicant respectfully notes at the outset that in order to establish a *prima facie* case of obviousness, it is the burden of the Examiner to demonstrate that three criteria are met: first, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine

reference teachings; second, there must be a reasonable expectation of success; and third, the prior art reference (or references when combined) must teach or suggest all the claim limitations. See M.P.E.P. § 2143.

The Examiner has rejected claims 7-17 under 35 U.S.C. § 103 as being unpatentable over *Chornenky* in view of U.S. 6,393,099 issued to *Miller* (“*Miller*”). Regarding claims 10-12 and 15-17, Applicant respectfully submits that the cancellation of those claims herein renders the rejection of the Examiner moot as to such claims and that rejection should, accordingly, be withdrawn.

As to claims 7-9 and 13-14, Applicant disagrees with the contentions of the Examiner and respectfully submits that, for at least the reasons outlined below, the rejection of those claims should be withdrawn.

#### **Alleged Obviousness of Claim 7**

The Examiner has rejected claim 7 as being obvious over *Chornenky* in view of *Miller*, stating that “*Chornenky* merely teaches that the target surface has a substantially planar shape,” and alleging that “*Miller* teaches the target surface having a substantially planner [sic] shape” and that in view of *Miller* “it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to design the planner [sic] surface target in order receive electrons to produce x-rays. Accordingly, one would be motivated to adopt the planner [sic] target surface because it would reduce secondary impact electrons than round shape target” (emphasis added).

As best understood by the Applicant, it appears that it is the position of the Examiner that it would have been obvious to modify the “round shape target” alleged to be disclosed in

*Chornenky* with a planar target surface alleged by the Examiner to be taught by *Miller*. In this regard, the Examiner has alleged that such a modification would reduce secondary impact electrons and that such a reduction in secondary impact electrons would provide a motivation to make the modification that the Examiner has proposed. Applicant respectfully disagrees with the contentions of the Examiner however and submits that, in light of the discussion below, the Examiner has failed to establish a *prima facie* case of obviousness with respect to claim 7.

In particular, although the Examiner has asserted that modification of the *Chornenky* device to include a planar target surface as alleged to be taught by *Miller* would result in the reduction of secondary impact electrons, the Examiner has cited nothing from either of the references that would tend to support a conclusion that such a reduction would inevitably be realized. That is, the Examiner has failed to establish that the asserted benefit, or any other benefit, would result from the modification of *Chornenky* with the teachings of *Miller*. Because it is not at all clear from the references that any benefit would be realized by modifying *Chornenky* in the manner proposed by the Examiner, Applicant submits that the Examiner has thus failed to establish that the references provide any suggestion or motivation to make the combination that the Examiner has alleged to be obvious. As the foregoing suggests, the Examiner has likewise failed to establish that there is a reasonable expectation that the allegedly obvious modification of *Chornenky* would result in any reduction of secondary impact electrons.

Moreover, even if *Chornenky* was modified in the manner that the Examiner has suggested, the resulting combination nonetheless fails to teach all the limitations of claim 7. By virtue of its dependency from claim 1, claim 7 includes the limitation of a “stationary anode [that] comprises: a substrate having first and second ends; and a target cap having top and side walls that together define a cavity. . .” As discussed above in connection with the rejection of

claim 1 by the Examiner under 35 U.S.C. § 102(e), *Chornenky* fails to teach such a limitation. Further, the Examiner has not established that *Miller* teaches such a limitation either.

Applicant thus respectfully submits that for at least the foregoing reasons, the Examiner's rejection of claim 7 has been overcome and should be withdrawn.

**Alleged Obviousness of Claims 8, 9, 13 and 14**

Because claims 8, 9, 13 and 14, like claim 7, all require a target cap that comprises "a planar top wall defining a target surface" (emphasis added), and because the rejection of those claims is based upon the same allegedly obvious combination used by the Examiner to reject claim 7, Applicant respectfully submits that the foregoing discussion of the obviousness rejection of claim 7 is equally germane to the obviousness rejection posed by the Examiner with respect to claim 8 and claims 9, 13 and 14. Accordingly, the attention of the Examiner is respectfully directed to such discussion.

In view of the foregoing, Applicant respectfully submits that the rejection of claims 8, 9, 13 and 14 has been overcome and should be withdrawn.

### CONCLUSION

In view of the discussion and amendments submitted herein, Applicant respectfully submits that each of the pending claims 1-9, 13-14, and 21-27 are in condition for allowance. Therefore, reconsideration of the rejections is requested and allowance of those claims is respectfully solicited. In the event that the Examiner finds any remaining impediment to a prompt allowance of this application that could be clarified in a telephonic interview, the Examiner is respectfully requested to initiate the same with the undersigned attorney.

Dated this 17<sup>th</sup> day of November 2003.

Respectfully submitted,



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